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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,935

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Guy Deneuvillers

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EXAMINER

FISHER, ELANA BETH

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

08/07/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,935	<b>Applicant(s)</b> DENEUVILLERS ET AL.	
	<b>Examiner</b> ELANA B. FISHER	<b>Art Unit</b> 3733	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22,25,28-33,36-41 and 43-53 is/are pending in the application.
- 4a) Of the above claim(s) 51-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22,25,28-33,36-41 and 43-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 5, 2009 has been entered.

### ***Election/Restrictions***

2. Newly submitted claims 51-53 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Newly submitted claims 51-53 are directed to a method for restoring and maintaining anatomical intervertebral spacing and for restoring three-dimensional mobility where an intervertebral support is installed. The intervertebral support required for this method does not require the same features as the intervertebral support in the remaining claims (i.e. it does not require the anterior portion to have a planar face and does not require the retaining member to be a lateral shoulder/projection. Accordingly, the method that is newly claimed can be done with a materially different intervertebral support than what is disclosed in the invention originally claimed.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 51-53 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims 22, 25, 28-33, 36-41, and 43-50 will be examined accordingly.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 33 recites the limitation "the core" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 47 recites the limitation "the core" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 29 recites the limitation "the space fitted with the support" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 31 recites the limitation "the region fitted with the support" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 33 recites the limitation "the flexibility" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 33 recites the limitation "the implant" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 45 recites the limitation "the height of the posterior portion" in the second and third lines of the claim. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 46 recites the limitation "the posterior ends of said surfaces" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 46 recites the limitation "the junction point" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.

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13. Claim 47 recites the limitation "the flexibility" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.
14. Claim 47 recites the limitation "the implant" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.
15. Claim 48 recites the limitation "the bottom and top faces of the posterior portion" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.
16. Claim 49 recites the limitation "the region fitted with the implant" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.
17. Claim 36 recites the limitation "the region fitted with the implant" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.
18. Claim 30 recites the limitation "the spacing" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.
19. Claim 40 recites the limitation "the center of the support" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.
20. Claim 41 recites the limitation "the full height of the support" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

21. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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22. Claims 22, 25, 28-29, 31-33, 37-39, 43-48, and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Castro (U.S. Publication 2002/0077702).

Castro discloses an intervertebral support (FIG 5) comprising an anterior portion (64a-64d) having a substantially planar face (FIG 5), a posterior portion (62) for dampening movement between adjacent vertebrae comprising a retaining member (72a-72d), the posterior portion having a front portion (see diagram provided) and top and bottom faces (see diagram provided). The retaining member (72a-72d) further comprises transverse projections/shoulders with symmetrically-opposite projecting bulges (74a-74c) that are set back from the anterior portion and that extend from the top and bottom faces (FIG 5) of the posterior portion (62), such that the bottom face bears on a top portion of a process at a bottom of the space filled with the support; and the planar face of the anterior portion (64a-64d) has a smaller surface area than The front portion (see diagram provided) of the posterior portion (62).

The anterior portion (64a-64d) is additionally provided with grooves (see diagram provided) between the planar face (FIG 5) and the front portion of the posterior portion. The posterior portion (62) is a tapering shape, thereby tapering in a posterior direction and flaring towards the anterior portion (FIG 5), such that there can be a freedom of movement between the top face and laminae located above the region filled with the support. Additionally, a core of the posterior portion (62) has a recess (66) enabling flexibility of the support to be increased. The core carries teeth (see diagram provided) spaced apart by furrows and opposed to each other in pairs on top and bottom faces of the

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posterior portion. The top portion face of the support (see diagram provided) additionally comprises a shallow groove (see diagram provided) extending lengthwise in its middle.

It should also be noted that the support (FIG 5) is made of a rigid biocompatible material (Paragraph [0025]).

***Claim Rejections - 35 USC § 103***

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 30, 36, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castro (U.S. Publication 2002/0077702).

Claims 36 and 49:

Castro discloses an intervertebral support according to claims 22 and 43 above however fails to disclose that the posterior portion is made of silicone. It would have been obvious to one having ordinary skill in the art at the time the invention was made to to have the posterior portion (62) be made of silicone having hardness lying in the range 40 to 80 on the Shore A scale, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 30:

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Castro discloses a support according to claim 22 above and additionally discloses that the posterior portion (62) is prismatic in shape (FIG 5) and of a height that corresponds to a spacing between adjacent vertebrae, however fails to disclose that the top face is triangular in shape. It would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the top face of the posterior portion in the shape of a triangle, since applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or configurations a person ordinary skill in the art would find obvious for the purpose of providing the top face of the posterior portion. *In re Dailey and Eilers*, 149 USPQ 47 (1966).

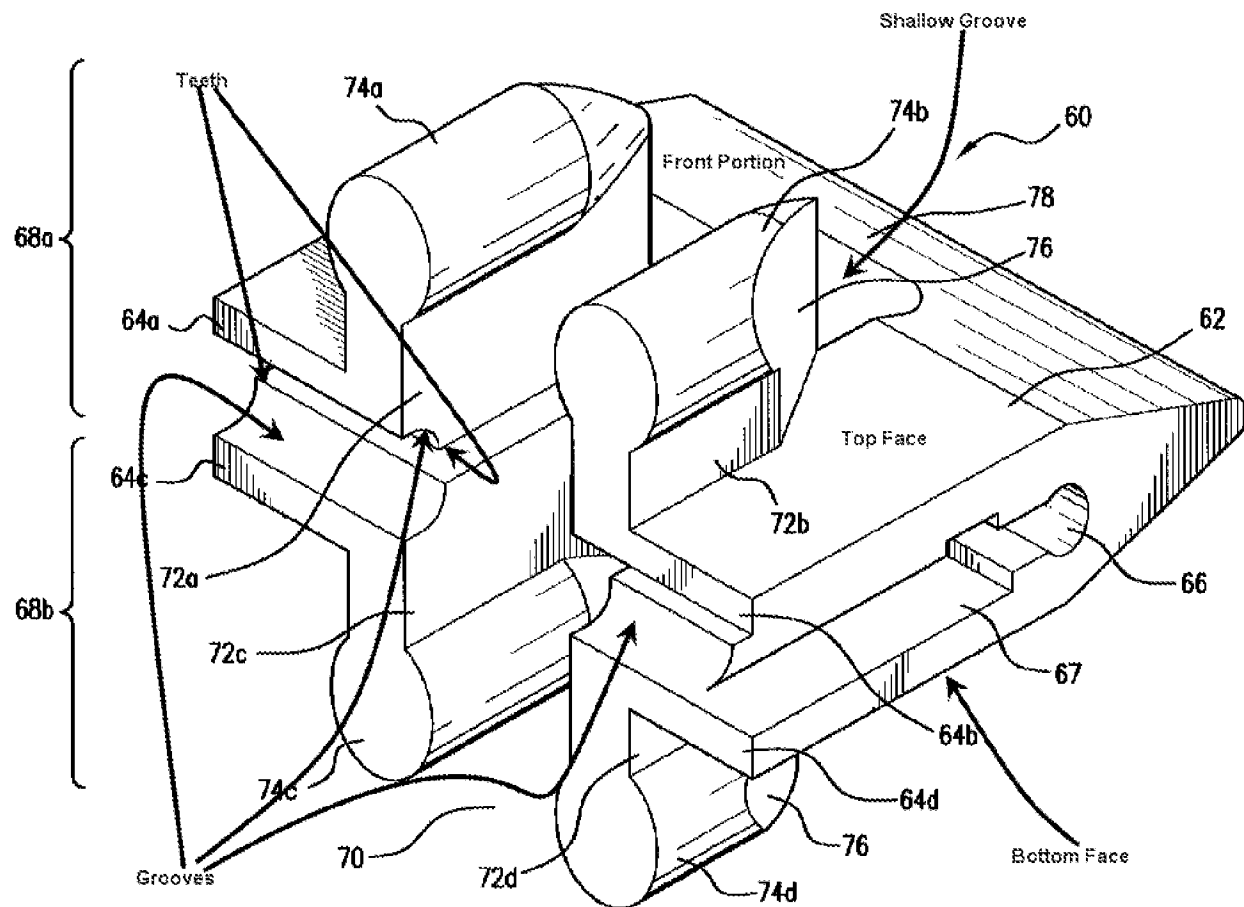
***Claim Rejections - 35 USC § 103***

25. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castro (U.S. Publication 2002/0077702) as applied to claim 22 above, and further in view of Senegas (U.S. Patent 6,761,720).

Castro discloses an intervertebral support according to claim 22 above, however fails to disclose additionally retaining means. Senegas discloses an intervertebral support comprising retaining member (8a, 10a, 8b, 10b) and additionally retention means constituted by ligaments (4a, 4b) crossing a center of the support and holes (12a, 14a, 16a, 12b, 14b, 16b) extending vertically for passing the ligaments, such that the ligaments extend a height of the support (FIG 2). It therefore would have been obvious to one skilled in the art to modify the support taught by Castro, by having additional retaining

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means, as is taught by Senegas because the additionally retaining means provide another element for securely attaching the support to surrounding vertebrae.



### *Response to Arguments*

26. Applicant's arguments with respect to claims 22, 25, 28-33, 36-41, and 43-50 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELANA B. FISHER whose telephone number is (571)270-3643.

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The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571)272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elana B Fisher/  
Examiner, Art Unit 3733

/Eduardo C. Robert/  
Supervisory Patent Examiner, Art Unit 3733